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| Ref. | Substrate type | NP  type | NP size (nm) | loading | Amine type (concentration) | Chloride type (concentration) | Water contatc angle | Surface roughness | Solvent type | Solvent molecular weight | Solvent density | Solvent viscosity | Solvent molar volume | Solute type | Solute concentration | Solute molecular weight | Permeability (LMH/bar) | RP | Selectivity (%) | RS |
| [1] | PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 |  |  |  | 1.97 |  |  |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.21 |  |  |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.73 |  |  |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 200 | 2.68 |  | 66.2 |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 400 | 2.68 |  | 71.52 |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 600 | 2.68 |  | 82.31 |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 800 | 2.68 |  | 85.7 |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 1000 | 2.68 |  | 88.2 |  |
| PAN | GO | 1500 | 0 | MPD (4 wt%) | TMC (2 wt%) | 49.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 2000 | 2.68 |  | 93.48 |  |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 |  |  |  | 1.81 | 0.918781726 |  |  |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 1.99 | 0.900452489 |  |  |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.69 | 0.945205479 |  |  |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 200 | 2.49 | 0.929104478 | 88.87 | 1.34244713 |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 400 | 2.49 | 0.929104478 | 90.03 | 1.258808725 |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 600 | 2.49 | 0.929104478 | 93.13 | 1.131454258 |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 800 | 2.49 | 0.929104478 | 94.88 | 1.107117853 |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 1000 | 2.49 | 0.929104478 | 95.31 | 1.080612245 |
| PAN | GO | 1500 | 1 | MPD (4 wt%) | TMC (2 wt%) | 44.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 2000 | 2.49 | 0.929104478 | 96.3 | 1.030166881 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 |  |  |  | 1.61 | 0.817258883 |  |  |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 1.68 | 0.760180995 |  |  |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.57 | 0.780821918 |  |  |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 200 | 1.99 | 0.742537313 | 91.09 | 1.375981873 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 400 | 1.99 | 0.742537313 | 92.41 | 1.29208613 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 600 | 1.99 | 0.742537313 | 92.24 | 1.120641477 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 800 | 1.99 | 0.742537313 | 93.4 | 1.089848308 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 1000 | 1.99 | 0.742537313 | 95.9 | 1.087301587 |
| PAN | GO | 1500 | 2 | MPD (4 wt%) | TMC (2 wt%) | 43.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 2000 | 1.99 | 0.742537313 | 98.23 | 1.050813008 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 |  |  |  | 1.25 | 0.634517766 |  |  |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 1.46 | 0.660633484 |  |  |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.54 | 0.739726027 |  |  |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 200 | 1.72 | 0.641791045 | 97.02 | 1.465558912 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 400 | 1.72 | 0.641791045 | 97.44 | 1.362416107 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 600 | 1.72 | 0.641791045 | 97.72 | 1.18721905 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 800 | 1.72 | 0.641791045 | 97.99 | 1.143407235 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 1000 | 1.72 | 0.641791045 | 98.27 | 1.114172336 |
| PAN | GO | 1500 | 3 | MPD (4 wt%) | TMC (2 wt%) | 42.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 2000 | 1.72 | 0.641791045 | 99.41 | 1.063436029 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 |  |  |  | 1.73 | 0.878172589 |  |  |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.8 | 1.266968326 |  |  |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 1.02 | 1.397260274 |  |  |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 200 | 3.49 | 1.302238806 | 95.09 | 1.436404834 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 400 | 3.49 | 1.302238806 | 96.26 | 1.345917226 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 600 | 3.49 | 1.302238806 | 97.57 | 1.185396671 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 800 | 3.49 | 1.302238806 | 97.83 | 1.141540257 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 1000 | 3.49 | 1.302238806 | 97.85 | 1.109410431 |
| PAN | GO | 1500 | 4 | MPD (4 wt%) | TMC (2 wt%) | 37.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | PEG | 500 | 2000 | 3.49 | 1.302238806 | 98.08 | 1.049208387 |
| [2] | PI | SNW-1 | 20 | 0 | MPD (4 wt%) | TMC (0.2 wt%) | 89.1 | 24.7 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.44 |  | 98.7 |  |
| PI | SNW-1 | 20 | 0.0625 | MPD (4 wt%) | TMC (0.2 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.78 | 1.0625 | 98.5 | 0.997973658 |
| PI | SNW-1 | 20 | 0.125 | MPD (4 wt%) | TMC (0.2 wt%) | 80 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 6.12 | 1.125 | 98.7 | 1 |
| PI | SNW-1 | 20 | 0.185 | MPD (4 wt%) | TMC (0.2 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 6.33 | 1.163602941 | 99.6 | 1.009118541 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.2 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 7.98 | 1.466911765 | 99.4 | 1.007092199 |
| PI | SNW-1 | 20 | 0.25 | MPD (1 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.11 | 0.387867647 | 99.3 | 1.006079027 |
| PI | SNW-1 | 20 | 0.25 | MPD (1.5 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.37 | 0.435661765 | 99.6 | 1.009118541 |
| PI | SNW-1 | 20 | 0.25 | MPD (2 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.11 | 0.387867647 | 99.5 | 1.00810537 |
| PI | SNW-1 | 20 | 0.25 | MPD (2.5 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.82 | 0.518382353 | 99.4 | 1.007092199 |
| PI | SNW-1 | 20 | 0.25 | MPD (3 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 3.66 | 0.672794118 | 99.6 | 1.009118541 |
| PI | SNW-1 | 20 | 0.25 | MPD (3.5 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.27 | 0.96875 | 99.7 | 1.010131712 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 6.39 | 1.174632353 | 99.8 | 1.011144883 |
| PI | SNW-1 | 20 | 0.25 | MPD (4.5 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 6.25 | 1.148897059 | 98.8 | 1.001013171 |
| PI | SNW-1 | 20 | 0.25 | MPD (5 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.13 | 0.943014706 | 97.6 | 0.988855117 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.1 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.6 | 1.029411765 | 96.9 | 0.981762918 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.15 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 6.39 | 1.174632353 | 99.8 | 1.011144883 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.2 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 7.98 | 1.466911765 | 99.4 | 1.007092199 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.25 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.46 | 1.003676471 | 99.5 | 1.00810537 |
| PI | SNW-1 | 20 | 0.25 | MPD (4 wt%) | TMC (0.3 wt%) | 69.7 | 53.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.37 | 0.987132353 | 99.3 | 1.006079027 |
| PI | SNW-1 | 20 | 0.275 | MPD (4 wt%) | TMC (0.2 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 5.84 | 1.073529412 | 99.3 | 1.006079027 |
| PI | SNW-1 | 20 | 0.3 | MPD (4 wt%) | TMC (0.2 wt%) | 46.1 | 24.7 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 4.19 | 0.770220588 | 99.2 | 1.005065856 |
| [3] | PI | aGQD | 1.6 | 0 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 88.9 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.21 |  | 97.65 |  |
| PI | aGQD | 1.6 | 0.25 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 36.1 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.68 | 1.212669683 | 97.99 | 1.003481823 |
| PI | aGQD | 1.6 | 0.5 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 22 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.97 | 1.343891403 | 98.32 | 1.006861239 |
| PI | aGQD | 1.6 | 0.625 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 35.9 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 3.22 | 1.457013575 | 98.66 | 1.010343062 |
| PI | aGQD | 1.6 | 0.75 | MPD (2 wt%) | BTAC (0.3 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 3 | 1.357466063 | 97.65 | 1 |
| PI | aGQD | 1.6 | 1 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 42.7 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.9 | 1.312217195 | 96.31 | 0.986277522 |
| PI | aGQD | 1.6 | 1.5 | MPD (2 wt%) | BTAC (0.3 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 2.79 | 1.262443439 | 95.3 | 0.97593446 |
| [4] | PI | GQD | 1.8 | 0 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 27.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.19 |  | 97.25 |  |
| PI | GQD | 1.8 | 0.125 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 26.7 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.24 | 1.263157895 | 97.45 | 1.002056555 |
| PI | GQD | 1.8 | 0.25 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 24.5 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.28 | 1.473684211 | 97.72 | 1.004832905 |
| PI | GQD | 1.8 | 0.375 | MPD (2 wt%) | BTAC (0.3 wt%) |  | 24.3 | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.25 | 1.315789474 | 96.65 | 0.993830334 |
| PI | GQD | 1.8 | 0.5 | MPD (2 wt%) | BTAC (0.3 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.24 | 1.263157895 | 96.78 | 0.995167095 |
| PI | GQD | 1.8 | 1 | MPD (2 wt%) | BTAC (0.3 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.23 | 1.210526316 | 96.18 | 0.988997429 |
| PI | GQD | 1.8 | 1.5 | MPD (2 wt%) | BTAC (0.3 wt%) |  |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RDB | 100 | 479 | 0.23 | 1.210526316 | 95.98 | 0.986940874 |
| [5] | PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.74 |  | 87.8 |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.74 |  | 93.62 |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.74 |  | 95.7 |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1500 | 2.74 |  | 97.23 |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 2.74 |  | 98.38 |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 1.95 |  |  |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.48 |  |  |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | TL | 92.14 | 0.59 | 0.867 | 106.27 |  |  |  | 0.86 |  |  |  |
| PAN | GQD | 3.5 | 0 | PEI (8 wt%) | TMC (1 wt%) | 56.3 | 69.5 | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.66 |  |  |  |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.08 | 1.124087591 | 87.2 | 0.993166287 |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.08 | 1.124087591 | 93.07 | 0.994125187 |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.08 | 1.124087591 | 95.52 | 0.998119122 |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1500 | 3.08 | 1.124087591 | 96.81 | 0.995680346 |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 3.08 | 1.124087591 | 98.11 | 0.99725554 |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.06 | 1.056410256 |  |  |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.57 | 1.060810811 |  |  |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 |  |  |  | 0.86 | 1 |  |  |
| PAN | GQD | 3.5 | 2 | PEI (8 wt%) | TMC (1 wt%) | 42.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.65 | 0.984848485 |  |  |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.43 | 1.251824818 | 87.16 | 0.992710706 |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.43 | 1.251824818 | 92.93 | 0.99262978 |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.43 | 1.251824818 | 95.43 | 0.997178683 |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1500 | 3.43 | 1.251824818 | 96.77 | 0.99526895 |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 3.43 | 1.251824818 | 97.97 | 0.995832486 |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.19 | 1.123076923 |  |  |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.7 | 1.148648649 |  |  |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 |  |  |  | 0.8 | 0.930232558 |  |  |
| PAN | GQD | 3.5 | 5 | PEI (8 wt%) | TMC (1 wt%) | 41.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.59 | 0.893939394 |  |  |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.75 | 1.368613139 | 87.11 | 0.99214123 |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.75 | 1.368613139 | 92.61 | 0.989211707 |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.75 | 1.368613139 | 95.19 | 0.994670846 |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1500 | 3.75 | 1.368613139 | 96.63 | 0.993829065 |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 3.75 | 1.368613139 | 97.92 | 0.995324253 |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.43 | 1.246153846 |  |  |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.92 | 1.297297297 |  |  |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | TL | 92.14 | 0.59 | 0.867 | 106.27 |  |  |  | 0.79 | 0.918604651 |  |  |
| PAN | GQD | 3.5 | 10 | PEI (8 wt%) | TMC (1 wt%) | 35.5 | 83.5 | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.55 | 0.833333333 |  |  |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.46 | 1.262773723 | 87.76 | 0.999544419 |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.46 | 1.262773723 | 92.98 | 0.993163854 |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.46 | 1.262773723 | 95.61 | 0.999059561 |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1500 | 3.46 | 1.262773723 | 96.95 | 0.99712023 |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 3.46 | 1.262773723 | 98.34 | 0.999593413 |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.18 | 1.117948718 |  |  |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.73 | 1.168918919 |  |  |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 |  |  |  | 0.72 | 0.837209302 |  |  |
| PAN | GQD | 3.5 | 30 | PEI (8 wt%) | TMC (1 wt%) | 27.4 | 69.5 | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 0.53 | 0.803030303 |  |  |
| [6] | PAN | GQD | 8.5 | 0 |  | TMC (0 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 8.5 |  | 71.1 |  |
| PAN | GQD | 8.5 | 2 |  | TMC (0.25 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 55.89 | 6.575294118 | 23.63 | 0.332348805 |
| PAN | GQD | 8.5 | 2 |  | TMC (0.5 wt%) | 36.5 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 45.07 | 5.302352941 | 63.06 | 0.886919831 |
| PAN | GQD | 8.5 | 2 |  | TMC (0.75 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 34.93 | 4.109411765 | 78.8 | 1.108298172 |
| PAN | GQD | 8.5 | 2 |  | TMC (1 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 30.39 | 3.575294118 | 82.26 | 1.156962025 |
| PAN | GQD | 8.5 | 2 |  | TMC (1.5 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 28.3 | 3.329411765 | 86.98 | 1.223347398 |
| PAN | GQD | 8.5 | 2 |  | TMC (2 wt%) |  |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | MO | 100 | 327 | 26.55 | 3.123529412 | 88.2 | 1.240506329 |
| [7] | PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20.23 | 1017 | 2.74 |  | 99.99 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | BTB | 12.48 | 624 | 2.74 |  | 98.21 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 8.16 | 408 | 2.74 |  | 97.47 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MO | 6.54 | 327 | 2.74 |  | 97.05 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20.23 | 1017 | 0.37 |  | 98.09 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 12.48 | 624 | 0.37 |  | 97.13 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | CV | 8.16 | 408 | 0.37 |  | 96.6 |  |
| PSF | SiO2 |  | 0 | PIP (1.6 wt%) | TMC (0.5 wt%) | 72.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | MO | 6.54 | 327 | 0.37 |  | 96.38 |  |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20.23 | 1017 | 3.04 | 1.109489051 | 98.63 | 0.98639864 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | BTB | 12.48 | 624 | 3.04 | 1.109489051 | 97.26 | 0.990326851 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 8.16 | 408 | 3.04 | 1.109489051 | 93.89 | 0.96327075 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MO | 6.54 | 327 | 3.04 | 1.109489051 | 92.94 | 0.957650696 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20.23 | 1017 | 0.39 | 1.054054054 | 97.66 | 0.995616271 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 12.48 | 624 | 0.39 | 1.054054054 | 96.38 | 0.99227839 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | CV | 8.16 | 408 | 0.39 | 1.054054054 | 93.72 | 0.970186335 |
| PSF | SiO2 |  | 0.0125 | PIP (1.6 wt%) | TMC (0.5 wt%) | 70.5 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | MO | 6.54 | 327 | 0.39 | 1.054054054 | 92.23 | 0.956941274 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20.23 | 1017 | 3.29 | 1.200729927 | 97.89 | 0.9789979 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | BTB | 12.48 | 624 | 3.29 | 1.200729927 | 96.94 | 0.987068527 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 8.16 | 408 | 3.29 | 1.200729927 | 93.79 | 0.962244793 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MO | 6.54 | 327 | 3.29 | 1.200729927 | 91.05 | 0.938176198 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20.23 | 1017 | 0.42 | 1.135135135 | 97.13 | 0.99021307 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 12.48 | 624 | 0.42 | 1.135135135 | 95.43 | 0.982497684 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | CV | 8.16 | 408 | 0.42 | 1.135135135 | 92.13 | 0.953726708 |
| PSF | SiO2 |  | 0.025 | PIP (1.6 wt%) | TMC (0.5 wt%) | 67.1 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | MO | 6.54 | 327 | 0.42 | 1.135135135 | 91.06 | 0.944801826 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20.23 | 1017 | 3.43 | 1.251824818 | 97.58 | 0.97589759 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | BTB | 12.48 | 624 | 3.43 | 1.251824818 | 96.63 | 0.983912025 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 8.16 | 408 | 3.43 | 1.251824818 | 92.53 | 0.949317739 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MO | 6.54 | 327 | 3.43 | 1.251824818 | 90.74 | 0.934981968 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20.23 | 1017 | 0.45 | 1.216216216 | 95.32 | 0.971760628 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 12.48 | 624 | 0.45 | 1.216216216 | 93.94 | 0.967157418 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | CV | 8.16 | 408 | 0.45 | 1.216216216 | 90.64 | 0.938302277 |
| PSF | SiO2 |  | 0.05 | PIP (1.6 wt%) | TMC (0.5 wt%) | 63.7 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | MO | 6.54 | 327 | 0.45 | 1.216216216 | 87.98 | 0.912844989 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20.23 | 1017 | 3.78 | 1.379562044 | 97.37 | 0.97379738 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | BTB | 12.48 | 624 | 3.78 | 1.379562044 | 96.11 | 0.978617249 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 8.16 | 408 | 3.78 | 1.379562044 | 90.11 | 0.924489587 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MO | 6.54 | 327 | 3.78 | 1.379562044 | 88.53 | 0.912210201 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20.23 | 1017 | 0.65 | 1.756756757 | 93.94 | 0.957691916 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 12.48 | 624 | 0.65 | 1.756756757 | 93.09 | 0.95840626 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | CV | 8.16 | 408 | 0.65 | 1.756756757 | 88.72 | 0.918426501 |
| PSF | SiO2 |  | 0.075 | PIP (1.6 wt%) | TMC (0.5 wt%) | 60.4 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | MO | 6.54 | 327 | 0.65 | 1.756756757 | 86.49 | 0.89738535 |
| [8] | PSF | SiO2 |  | 0 | PEI (2 wt%) | TPC (0.1 wt%) | 62.3 | 2.222 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 0.69 |  | 60 |  |
| PSF | SiO2 |  | 0.03 | PEI (2 wt%) | TPC (0.1 wt%) | 55.7 | 5.465 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 0.79 | 1.144927536 | 51.53 | 0.858833333 |
| PSF | SiO2 |  | 0.05 | PEI (2 wt%) | TPC (0.1 wt%) | 53.8 | 16.653 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 1.2 | 1.739130435 | 65.16 | 1.086 |
| PSF | SiO2 |  | 0.1 | PEI (2 wt%) | TPC (0.1 wt%) | 46 | 21.708 | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 2.99 | 4.333333333 | 77.21 | 1.286833333 |
| PSF | SiO2 |  | 0 | PEI (2 wt%) | TPC (0.5 wt%) |  |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 0.31 |  | 56.56 |  |
| PSF | SiO2 |  | 0.03 | PEI (2 wt%) | TPC (0.5 wt%) |  |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 0.36 | 1.161290323 | 54.81 | 0.969059406 |
| PSF | SiO2 |  | 0.05 | PEI (2 wt%) | TPC (0.5 wt%) |  |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 0.78 | 2.516129032 | 87.13 | 1.540487977 |
| PSF | SiO2 |  | 0.1 | PEI (2 wt%) | TPC (0.5 wt%) |  |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | CV | 10 | 408 | 1.4 | 4.516129032 | 98.85 | 1.747701556 |
| [9] | PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 100 | 1017 | 9.47 |  | 95.54 |  |
| PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 100 | 1017 | 6.62 |  | 96.57 |  |
| PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | RB | 100 | 1017 | 3.12 |  | 97.37 |  |
| PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | RB | 100 | 1017 | 11.17 |  | 97.25 |  |
| PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | MEK | 72.11 | 0.43 | 0.805 | 89.58 | RB | 100 | 1017 | 8.44 |  | 97.94 |  |
| PAN | UiO-66 |  | 0 | PEI (2 wt%) | TMC (0.2 wt%) | 56.12 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 | RB | 100 | 1017 | 8.67 |  | 99.31 |  |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 100 | 1017 | 16.78 | 1.771911299 | 97.14 | 1.016746912 |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 100 | 1017 | 11.23 | 1.696374622 | 98.17 | 1.016568292 |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | RB | 100 | 1017 | 6.97 | 2.233974359 | 97.94 | 1.005853959 |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | RB | 100 | 1017 | 20.53 | 1.837958818 | 98.06 | 1.008329049 |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | MEK | 72.11 | 0.43 | 0.805 | 89.58 | RB | 100 | 1017 | 16.77 | 1.986966825 | 97.49 | 0.99540535 |
| PAN | UiO-66 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.89 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 | RB | 100 | 1017 | 17.64 | 2.034602076 | 99.54 | 1.00231598 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 100 | 1017 | 12.68 | 1.338965153 | 97.37 | 1.019154281 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 100 | 1017 | 8.41 | 1.270392749 | 98.51 | 1.020089055 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | RB | 100 | 1017 | 4.53 | 1.451923077 | 98.74 | 1.014070042 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | RB | 100 | 1017 | 14.11 | 1.263205013 | 98.29 | 1.010694087 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | MEK | 72.11 | 0.43 | 0.805 | 89.58 | RB | 100 | 1017 | 10.88 | 1.289099526 | 97.03 | 0.990708597 |
| PAN | UiO-66-(CH3)2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 68.11 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 | RB | 100 | 1017 | 12.25 | 1.412918108 | 99.54 | 1.00231598 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 100 | 1017 | 13.83 | 1.460401267 | 96.23 | 1.007222106 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 100 | 1017 | 9.44 | 1.425981873 | 97.94 | 1.0141866 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | RB | 100 | 1017 | 5.43 | 1.740384615 | 98.4 | 1.010578207 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | RB | 100 | 1017 | 16.42 | 1.470008953 | 96.91 | 0.996503856 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | MEK | 72.11 | 0.43 | 0.805 | 89.58 | RB | 100 | 1017 | 12.93 | 1.531990521 | 98.06 | 1.00122524 |
| PAN | UiO-66-NH2 |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 65.59 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 | RB | 100 | 1017 | 14.05 | 1.620530565 | 99.65 | 1.003423623 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 100 | 1017 | 19.21 | 2.028511088 | 97.71 | 1.022713 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 100 | 1017 | 12.9 | 1.948640483 | 98.86 | 1.023713369 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | RB | 100 | 1017 | 7.99 | 2.560897436 | 98.29 | 1.009448495 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 | RB | 100 | 1017 | 22.83 | 2.043867502 | 97.83 | 1.00596401 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | MEK | 72.11 | 0.43 | 0.805 | 89.58 | RB | 100 | 1017 | 19.21 | 2.276066351 | 98.4 | 1.004696753 |
| PAN | UiO-66(Ti) |  | 0.2 | PEI (2 wt%) | TMC (0.2 wt%) | 66.32 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 | RB | 100 | 1017 | 20.08 | 2.316032295 | 99.89 | 1.005840298 |
| [10] | PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.61 |  | 63.29 |  |
| PAN | Ti3C2Tx |  | 1 | PEI (6 wt%) | TMC (1 wt%) | 43.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.87 | 1.099616858 | 81.18 | 1.282667088 |
| PAN | Ti3C2Tx |  | 2 | PEI (6 wt%) | TMC (1 wt%) | 39.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 3.34 | 1.279693487 | 88.55 | 1.399115184 |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.67 | 1.022988506 | 91.28 | 1.44224996 |
| PAN | Ti3C2Tx |  | 4 | PEI (6 wt%) | TMC (1 wt%) | 25.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.33 | 0.892720307 | 94.42 | 1.491862854 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.61 |  | 79.84 |  |
| PAN | Ti3C2Tx |  | 1 | PEI (6 wt%) | TMC (1 wt%) | 43.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.87 | 1.099616858 | 89.53 | 1.121367735 |
| PAN | Ti3C2Tx |  | 2 | PEI (6 wt%) | TMC (1 wt%) | 39.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 3.34 | 1.279693487 | 92.81 | 1.1624499 |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.67 | 1.022988506 | 93.08 | 1.165831663 |
| PAN | Ti3C2Tx |  | 4 | PEI (6 wt%) | TMC (1 wt%) | 25.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.33 | 0.892720307 | 96.9 | 1.213677355 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.61 |  | 86.97 |  |
| PAN | Ti3C2Tx |  | 1 | PEI (6 wt%) | TMC (1 wt%) | 43.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.87 | 1.099616858 | 94.07 | 1.081637346 |
| PAN | Ti3C2Tx |  | 2 | PEI (6 wt%) | TMC (1 wt%) | 39.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.34 | 1.279693487 | 95.57 | 1.098884673 |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.67 | 1.022988506 | 96.79 | 1.112912499 |
| PAN | Ti3C2Tx |  | 4 | PEI (6 wt%) | TMC (1 wt%) | 25.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.33 | 0.892720307 | 98.02 | 1.127055306 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.61 |  | 92.32 |  |
| PAN | Ti3C2Tx |  | 1 | PEI (6 wt%) | TMC (1 wt%) | 43.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.87 | 1.099616858 | 95.87 | 1.038453206 |
| PAN | Ti3C2Tx |  | 2 | PEI (6 wt%) | TMC (1 wt%) | 39.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.34 | 1.279693487 | 95.97 | 1.039536395 |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.67 | 1.022988506 | 97.92 | 1.060658579 |
| PAN | Ti3C2Tx |  | 4 | PEI (6 wt%) | TMC (1 wt%) | 25.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.33 | 0.892720307 | 99.69 | 1.079831023 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.61 |  | 94.81 |  |
| PAN | Ti3C2Tx |  | 1 | PEI (6 wt%) | TMC (1 wt%) | 43.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.87 | 1.099616858 | 98.9 | 1.043138909 |
| PAN | Ti3C2Tx |  | 2 | PEI (6 wt%) | TMC (1 wt%) | 39.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.34 | 1.279693487 | 99.58 | 1.050311149 |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.67 | 1.022988506 | 99.31 | 1.047463348 |
| PAN | Ti3C2Tx |  | 4 | PEI (6 wt%) | TMC (1 wt%) | 25.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.33 | 0.892720307 | 99.85 | 1.053158949 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 200 | 1.97 |  | 74.93 |  |
| PAN | Ti3C2Tx |  | 1 | PDMS (20 wt%) |  | 108.2 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 200 | 1.76 | 0.893401015 | 87.71 | 1.170559189 |
| PAN | Ti3C2Tx |  | 3 | PDMS (20 wt%) |  | 103.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 200 | 1.21 | 0.614213198 | 91.77 | 1.224743094 |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 200 | 0.99 | 0.502538071 | 93.92 | 1.253436541 |
| PAN | Ti3C2Tx |  | 10 | PDMS (20 wt%) |  | 97.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 200 | 1.39 | 0.705583756 | 90.93 | 1.21353263 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 400 | 1.97 |  | 80.56 |  |
| PAN | Ti3C2Tx |  | 1 | PDMS (20 wt%) |  | 108.2 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 400 | 1.76 | 0.893401015 | 91.67 | 1.137909633 |
| PAN | Ti3C2Tx |  | 3 | PDMS (20 wt%) |  | 103.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 400 | 1.21 | 0.614213198 | 93.7 | 1.163108242 |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 400 | 0.99 | 0.502538071 | 94.3 | 1.170556107 |
| PAN | Ti3C2Tx |  | 10 | PDMS (20 wt%) |  | 97.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 400 | 1.39 | 0.705583756 | 92.63 | 1.149826216 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 600 | 1.97 |  | 86.68 |  |
| PAN | Ti3C2Tx |  | 1 | PDMS (20 wt%) |  | 108.2 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 600 | 1.76 | 0.893401015 | 94.68 | 1.092293493 |
| PAN | Ti3C2Tx |  | 3 | PDMS (20 wt%) |  | 103.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 600 | 1.21 | 0.614213198 | 95.28 | 1.099215505 |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 600 | 0.99 | 0.502538071 | 95.64 | 1.103368713 |
| PAN | Ti3C2Tx |  | 10 | PDMS (20 wt%) |  | 97.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 600 | 1.39 | 0.705583756 | 94.33 | 1.088255653 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 800 | 1.97 |  | 93.63 |  |
| PAN | Ti3C2Tx |  | 1 | PDMS (20 wt%) |  | 108.2 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 800 | 1.76 | 0.893401015 | 96.38 | 1.029370928 |
| PAN | Ti3C2Tx |  | 3 | PDMS (20 wt%) |  | 103.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 800 | 1.21 | 0.614213198 | 96.98 | 1.035779131 |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 800 | 0.99 | 0.502538071 | 98.53 | 1.052333654 |
| PAN | Ti3C2Tx |  | 10 | PDMS (20 wt%) |  | 97.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 800 | 1.39 | 0.705583756 | 95.19 | 1.016661326 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 1000 | 1.97 |  | 95.81 |  |
| PAN | Ti3C2Tx |  | 1 | PDMS (20 wt%) |  | 108.2 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 1000 | 1.76 | 0.893401015 | 97.36 | 1.016177852 |
| PAN | Ti3C2Tx |  | 3 | PDMS (20 wt%) |  | 103.7 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 1000 | 1.21 | 0.614213198 | 98.67 | 1.029850746 |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.8 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 1000 | 0.99 | 0.502538071 | 98.91 | 1.032355704 |
| PAN | Ti3C2Tx |  | 10 | PDMS (20 wt%) |  | 97.5 |  | TL | 92.14 | 0.59 | 0.867 | 106.27 | PEG | 500 | 1000 | 1.39 | 0.705583756 | 96.4 | 1.006158021 |
| [11] | PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.33 |  | 63.43 |  |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.58 | 1.107296137 | 91.81 | 1.447422355 |
| PAN | Ti3C2Tx-NH2 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 28.2 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 3.09 | 1.326180258 | 90.26 | 1.422985969 |
| PAN | Ti3C2Tx-COOR |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 31.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.91 | 1.248927039 | 90.77 | 1.431026328 |
| PAN | Ti3C2Tx-C6H6 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 41.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.34 | 1.004291845 | 92.07 | 1.451521362 |
| PAN | Ti3C2Tx-C12H26 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 45.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.32 | 0.995708155 | 92.71 | 1.461611225 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.33 |  | 80.01 |  |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.58 | 1.107296137 | 93.29 | 1.165979253 |
| PAN | Ti3C2Tx-NH2 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 28.2 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 3.09 | 1.326180258 | 92.14 | 1.151606049 |
| PAN | Ti3C2Tx-COOR |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 31.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.91 | 1.248927039 | 93.17 | 1.16447944 |
| PAN | Ti3C2Tx-C6H6 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 41.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.34 | 1.004291845 | 94.72 | 1.183852018 |
| PAN | Ti3C2Tx-C12H26 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 45.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.32 | 0.995708155 | 94.59 | 1.182227222 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.33 |  | 87.45 |  |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.58 | 1.107296137 | 95.56 | 1.092738708 |
| PAN | Ti3C2Tx-NH2 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 28.2 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.09 | 1.326180258 | 93.37 | 1.067695826 |
| PAN | Ti3C2Tx-COOR |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 31.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.91 | 1.248927039 | 94.92 | 1.08542024 |
| PAN | Ti3C2Tx-C6H6 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 41.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.34 | 1.004291845 | 95.68 | 1.094110921 |
| PAN | Ti3C2Tx-C12H26 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 45.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.32 | 0.995708155 | 96.73 | 1.106117782 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.33 |  | 92.79 |  |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.58 | 1.107296137 | 96.92 | 1.044509107 |
| PAN | Ti3C2Tx-NH2 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 28.2 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.09 | 1.326180258 | 96.15 | 1.036210799 |
| PAN | Ti3C2Tx-COOR |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 31.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.91 | 1.248927039 | 96.92 | 1.044509107 |
| PAN | Ti3C2Tx-C6H6 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 41.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.34 | 1.004291845 | 97.83 | 1.054316198 |
| PAN | Ti3C2Tx-C12H26 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 45.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.32 | 0.995708155 | 98.34 | 1.05981248 |
| PAN | Ti3C2Tx |  | 0 | PEI (6 wt%) | TMC (1 wt%) | 55.4 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.33 |  | 95.19 |  |
| PAN | Ti3C2Tx |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 36.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.58 | 1.107296137 | 98.41 | 1.033827083 |
| PAN | Ti3C2Tx-NH2 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 28.2 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.09 | 1.326180258 | 97.38 | 1.023006618 |
| PAN | Ti3C2Tx-COOR |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 31.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.91 | 1.248927039 | 98.02 | 1.029730014 |
| PAN | Ti3C2Tx-C6H6 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 41.5 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.34 | 1.004291845 | 98.67 | 1.036558462 |
| PAN | Ti3C2Tx-C12H26 |  | 3 | PEI (6 wt%) | TMC (1 wt%) | 45.3 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.32 | 0.995708155 | 99.32 | 1.04338691 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.2 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.88 |  | 75.28 |  |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.4 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.45 | 0.771276596 | 94.23 | 1.251726886 |
| PAN | Ti3C2Tx-NH2 |  | 5 | PDMS (20 wt%) |  | 88.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.26 | 0.670212766 | 94.98 | 1.261689692 |
| PAN | Ti3C2Tx-COOR |  | 5 | PDMS (20 wt%) |  | 93.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.33 | 0.707446809 | 94.24 | 1.251859724 |
| PAN | Ti3C2Tx-C6H6 |  | 5 | PDMS (20 wt%) |  | 104.3 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.61 | 0.856382979 | 93.63 | 1.243756642 |
| PAN | Ti3C2Tx-C12H26 |  | 5 | PDMS (20 wt%) |  | 108.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 200 | 1.78 | 0.946808511 | 91.67 | 1.21772051 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.2 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.88 |  | 80.04 |  |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.4 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.45 | 0.771276596 | 95.23 | 1.18978011 |
| PAN | Ti3C2Tx-NH2 |  | 5 | PDMS (20 wt%) |  | 88.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.26 | 0.670212766 | 96.28 | 1.202898551 |
| PAN | Ti3C2Tx-COOR |  | 5 | PDMS (20 wt%) |  | 93.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.33 | 0.707446809 | 95.67 | 1.195277361 |
| PAN | Ti3C2Tx-C6H6 |  | 5 | PDMS (20 wt%) |  | 104.3 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.61 | 0.856382979 | 94.62 | 1.182158921 |
| PAN | Ti3C2Tx-C12H26 |  | 5 | PDMS (20 wt%) |  | 108.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 400 | 1.78 | 0.946808511 | 93.73 | 1.17103948 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.2 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.88 |  | 88.1 |  |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.4 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.45 | 0.771276596 | 95.62 | 1.085357548 |
| PAN | Ti3C2Tx-NH2 |  | 5 | PDMS (20 wt%) |  | 88.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.26 | 0.670212766 | 96.68 | 1.09738933 |
| PAN | Ti3C2Tx-COOR |  | 5 | PDMS (20 wt%) |  | 93.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.33 | 0.707446809 | 96.38 | 1.093984109 |
| PAN | Ti3C2Tx-C6H6 |  | 5 | PDMS (20 wt%) |  | 104.3 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.61 | 0.856382979 | 95.17 | 1.080249716 |
| PAN | Ti3C2Tx-C12H26 |  | 5 | PDMS (20 wt%) |  | 108.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 600 | 1.78 | 0.946808511 | 95.02 | 1.078547106 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.2 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.88 |  | 92.86 |  |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.4 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.45 | 0.771276596 | 96.47 | 1.038875727 |
| PAN | Ti3C2Tx-NH2 |  | 5 | PDMS (20 wt%) |  | 88.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.26 | 0.670212766 | 97.82 | 1.053413741 |
| PAN | Ti3C2Tx-COOR |  | 5 | PDMS (20 wt%) |  | 93.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.33 | 0.707446809 | 96.92 | 1.043721732 |
| PAN | Ti3C2Tx-C6H6 |  | 5 | PDMS (20 wt%) |  | 104.3 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.61 | 0.856382979 | 96.02 | 1.034029722 |
| PAN | Ti3C2Tx-C12H26 |  | 5 | PDMS (20 wt%) |  | 108.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 800 | 1.78 | 0.946808511 | 95.12 | 1.024337713 |
| PAN | Ti3C2Tx |  | 0 | PDMS (20 wt%) |  | 116.2 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.88 |  | 95.06 |  |
| PAN | Ti3C2Tx |  | 5 | PDMS (20 wt%) |  | 98.4 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.45 | 0.771276596 | 97.32 | 1.023774458 |
| PAN | Ti3C2Tx-NH2 |  | 5 | PDMS (20 wt%) |  | 88.5 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.26 | 0.670212766 | 97.92 | 1.030086261 |
| PAN | Ti3C2Tx-COOR |  | 5 | PDMS (20 wt%) |  | 93.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.33 | 0.707446809 | 97.17 | 1.022196507 |
| PAN | Ti3C2Tx-C6H6 |  | 5 | PDMS (20 wt%) |  | 104.3 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.61 | 0.856382979 | 96.57 | 1.015884704 |
| PAN | Ti3C2Tx-C12H26 |  | 5 | PDMS (20 wt%) |  | 108.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 | PEG | 500 | 1000 | 1.78 | 0.946808511 | 96.27 | 1.012728803 |
| [12] | PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.37 |  | 60.13 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 1.43 | 0.603375527 | 84.66 | 1.407949443 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 3.06 | 1.291139241 | 66.01 | 1.097788126 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.72 | 1.147679325 | 70.35 | 1.169965076 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 200 | 2.52 | 1.063291139 | 73.42 | 1.221021121 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.37 |  | 76.49 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 1.43 | 0.603375527 | 91.82 | 1.200418355 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 3.06 | 1.291139241 | 86.45 | 1.1302131 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.72 | 1.147679325 | 89.26 | 1.166949928 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 400 | 2.52 | 1.063291139 | 89.78 | 1.173748202 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.37 |  | 87.47 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 1.43 | 0.603375527 | 92.84 | 1.061392477 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 3.06 | 1.291139241 | 92.08 | 1.052703784 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.72 | 1.147679325 | 92.33 | 1.055561907 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 600 | 2.52 | 1.063291139 | 92.25 | 1.054647308 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.37 |  | 92.59 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 1.43 | 0.603375527 | 93.86 | 1.013716384 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 3.06 | 1.291139241 | 92.33 | 0.997191921 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.72 | 1.147679325 | 92.84 | 1.002700076 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 800 | 2.52 | 1.063291139 | 93.61 | 1.011016308 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.37 |  | 94.63 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 1.43 | 0.603375527 | 96.42 | 1.018915777 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 3.06 | 1.291139241 | 94.88 | 1.002641868 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.72 | 1.147679325 | 95.41 | 1.008242629 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 1000 | 2.52 | 1.063291139 | 95.91 | 1.013526366 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 2.37 |  | 96.93 |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 1.43 | 0.603375527 | 98.21 | 1.013205406 |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 3.06 | 1.291139241 | 97.19 | 1.002682348 |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 2.72 | 1.147679325 | 97.44 | 1.005261529 |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 | PEG | 500 | 2000 | 2.52 | 1.063291139 | 97.95 | 1.010523058 |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 4.84 |  |  |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 3.33 | 0.688016529 |  |  |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 2.44 | 0.504132231 |  |  |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 5.68 | 1.173553719 |  |  |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | HEP | 100.2 | 0.39 | 0.684 | 146.49 |  |  |  | 7.87 | 1.626033058 |  |  |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.1 |  |  |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 0.66 | 0.314285714 |  |  |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 0.89 | 0.423809524 |  |  |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 1.79 | 0.852380952 |  |  |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | EA | 88.1 | 0.45 | 0.897 | 98.22 |  |  |  | 2.34 | 1.114285714 |  |  |
| PAN | PDNPs | 100 | 0 | PEI (8 wt%) | TMC (2 wt%) | 47.7 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 0.29 |  |  |  |
| PAN | PDNPs | 100 | 1 | PEI (8 wt%) | TMC (2 wt%) | 82.6 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 0.17 | 0.586206897 |  |  |
| PAN | PDNPs | 100 | 3 | PEI (8 wt%) | TMC (2 wt%) | 85.8 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 0.53 | 1.827586207 |  |  |
| PAN | PDNPs | 100 | 5 | PEI (8 wt%) | TMC (2 wt%) | 63.1 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 1.03 | 3.551724138 |  |  |
| PAN | PDNPs | 100 | 7 | PEI (8 wt%) | TMC (2 wt%) | 59 |  | AC | 58.08 | 0.32 | 0.784 | 74.08 |  |  |  | 0.56 | 1.931034483 |  |  |
| [13] | PAN | TiO2@rGO | 150 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 43 | 70.5 | IPA | 60.1 | 2.37 | 0.786 | 76.46 |  |  |  |  |  |  |  |
| PAN | TiO2@rGO | 150 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 43 | 70.5 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 500 | 624 | 1.9 |  | 86 |  |
| PAN | TiO2@rGO | 150 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 43 | 70.5 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 500 | 1017 | 1.15 |  | 90 |  |
| PAN | TiO2@rGO | 150 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 43 | 70.5 | HEX | 86.18 | 0.31 | 0.655 | 131.57 |  |  |  |  |  |  |  |
| PAN | TiO2@rGO | 150 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 33 |  | IPA | 60.1 | 2.37 | 0.786 | 76.46 |  |  |  |  |  |  |  |
| PAN | TiO2@rGO | 150 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 33 |  | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 500 | 624 | 2.76 | 1.452631579 | 94 | 1.093023256 |
| PAN | TiO2@rGO | 150 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 33 |  | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 500 | 1017 | 2.22 | 1.930434783 | 96 | 1.066666667 |
| PAN | TiO2@rGO | 150 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 33 |  | HEX | 86.18 | 0.31 | 0.655 | 131.57 |  |  |  | 1.43 |  |  |  |
| PAN | TiO2@rGO | 150 | 0.2 | MPD (2 wt%) | TMC (0.15 wt%) | 31 | 84 | IPA | 60.1 | 2.37 | 0.786 | 76.46 |  |  |  |  |  |  |  |
| PAN | TiO2@rGO | 150 | 0.2 | MPD (2 wt%) | TMC (0.15 wt%) | 31 | 84 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 500 | 624 | 4.24 | 2.231578947 | 95 | 1.104651163 |
| PAN | TiO2@rGO | 150 | 0.2 | MPD (2 wt%) | TMC (0.15 wt%) | 31 | 84 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 500 | 1017 | 3.23 | 2.808695652 | 98 | 1.088888889 |
| PAN | TiO2@rGO | 150 | 0.2 | MPD (2 wt%) | TMC (0.15 wt%) | 31 | 84 | HEX | 86.18 | 0.31 | 0.655 | 131.57 |  |  |  | 1.31 |  |  |  |
| PAN | TiO2@rGO | 150 | 0.4 | MPD (2 wt%) | TMC (0.15 wt%) | 32 | 152 | IPA | 60.1 | 2.37 | 0.786 | 76.46 |  |  |  | 5.54 |  |  |  |
| PAN | TiO2@rGO | 150 | 0.4 | MPD (2 wt%) | TMC (0.15 wt%) | 32 | 152 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | BTB | 500 | 624 | 4.78 | 2.515789474 | 93 | 1.081395349 |
| PAN | TiO2@rGO | 150 | 0.4 | MPD (2 wt%) | TMC (0.15 wt%) | 32 | 152 | ETOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 500 | 1017 | 3.38 | 2.939130435 | 97 | 1.077777778 |
| PAN | TiO2@rGO | 150 | 0.4 | MPD (2 wt%) | TMC (0.15 wt%) | 32 | 152 | HEX | 86.18 | 0.31 | 0.655 | 131.57 |  |  |  | 1.35 |  |  |  |
| [14] | PI | rGO-ODA | 3000 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 70 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | AO | 20 | 265 | 2.8 |  | 92.7 |  |
| PI | rGO-ODA | 3000 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 70 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | SY | 20 | 452 | 3.4 |  | 99.9 |  |
| PI | rGO-ODA | 3000 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 70 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20 | 1017 | 3.7 |  | 99.7 |  |
| PI | rGO-ODA | 3000 | 0.03 | MPD (2 wt%) | TMC (0.1 wt%) | 81 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | AO | 20 | 265 | 3.9 | 1.392857143 | 84.7 | 0.913700108 |
| PI | rGO-ODA | 3000 | 0.03 | MPD (2 wt%) | TMC (0.1 wt%) | 81 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | SY | 20 | 452 | 4.4 | 1.294117647 | 99.4 | 0.994994995 |
| PI | rGO-ODA | 3000 | 0.03 | MPD (2 wt%) | TMC (0.1 wt%) | 81 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20 | 1017 | 4.7 | 1.27027027 | 99.1 | 0.993981946 |
| PI | rGO-ODA | 3000 | 0.06 | MPD (2 wt%) | TMC (0.1 wt%) | 84 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | AO | 20 | 265 | 4.3 | 1.535714286 | 76.8 | 0.828478964 |
| PI | rGO-ODA | 3000 | 0.06 | MPD (2 wt%) | TMC (0.1 wt%) | 84 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | SY | 20 | 452 | 4.6 | 1.352941176 | 98.6 | 0.986986987 |
| PI | rGO-ODA | 3000 | 0.06 | MPD (2 wt%) | TMC (0.1 wt%) | 84 |  | EtOH | 46.07 | 1.2 | 0.789 | 58.39 | RB | 20 | 1017 | 5 | 1.351351351 | 98.1 | 0.983951856 |
| [15] | PMIA | β-CD@ZIF-8 | 87.1 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 86.62 | 0.53 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 14.3 | 408 | 0.63 |  | 90.41 |  |
| PMIA | β-CD@ZIF-8 | 87.1 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 86.62 | 0.53 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MB | 28 | 800 | 0.83 |  | 96.59 |  |
| PMIA | β-CD@ZIF-8 | 87.1 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 86.62 | 0.53 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 35.6 | 1017 | 1.22 |  | 87.31 |  |
| PMIA | β-CD@ZIF-8 | 87.1 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 86.62 | 0.53 | THF | 72.11 | 0.63 | 0.889 | 81.11 | CV | 14.3 | 408 | 0.74 |  | 85.39 |  |
| PMIA | β-CD@ZIF-8 | 87.1 | 0 | MPD (2 wt%) | TMC (0.15 wt%) | 86.62 | 0.53 | THF | 72.11 | 0.63 | 0.889 | 81.11 | RB | 35.6 | 1017 | 1.03 |  | 95.25 |  |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 94.78 | 10.6 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 14.3 | 408 | 4.35 | 6.904761905 | 96.07 | 1.062603694 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 94.78 | 10.6 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MB | 28 | 800 | 4.85 | 5.843373494 | 98.64 | 1.021223729 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 94.78 | 10.6 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 35.6 | 1017 | 2.55 | 2.090163934 | 96.24 | 1.102279235 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 94.78 | 10.6 | THF | 72.11 | 0.63 | 0.889 | 81.11 | CV | 14.3 | 408 | 0.82 | 1.108108108 | 95.21 | 1.115001757 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.05 | MPD (2 wt%) | TMC (0.15 wt%) | 94.78 | 10.6 | THF | 72.11 | 0.63 | 0.889 | 81.11 | RB | 35.6 | 1017 | 1.4 | 1.359223301 | 94.66 | 0.993805774 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.1 | MPD (2 wt%) | TMC (0.15 wt%) | 93.35 | 16.23 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | CV | 14.3 | 408 | 5.14 | 8.158730159 | 93.74 | 1.036832209 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.1 | MPD (2 wt%) | TMC (0.15 wt%) | 93.35 | 16.23 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | MB | 28 | 800 | 7.66 | 9.228915663 | 97.69 | 1.011388342 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.1 | MPD (2 wt%) | TMC (0.15 wt%) | 93.35 | 16.23 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 35.6 | 1017 | 2.99 | 2.450819672 | 90.02 | 1.031038827 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.1 | MPD (2 wt%) | TMC (0.15 wt%) | 93.35 | 16.23 | THF | 72.11 | 0.63 | 0.889 | 81.11 | CV | 14.3 | 408 | 2.61 | 3.527027027 | 96.55 | 1.130694461 |
| PMIA | β-CD@ZIF-8 | 87.1 | 0.1 | MPD (2 wt%) | TMC (0.15 wt%) | 93.35 | 16.23 | THF | 72.11 | 0.63 | 0.889 | 81.11 | RB | 35.6 | 1017 | 3.54 | 3.436893204 | 92.56 | 0.97175853 |
| [16] | PI | ZIF-11 | 79 | 0 | MPD (2 wt%) | TMC (0.066 wt%) | 71 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 3.91 |  | 96.47 |  |
| PI | ZIF-11 | 79 | 0 | MPD (2 wt%) | TMC (0.066 wt%) | 71 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | AO | 20 | 265 | 2.61 |  | 92.64 |  |
| PI | ZIF-11 | 79 | 0 | MPD (2 wt%) | TMC (0.066 wt%) | 71 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20 | 1017 | 2.44 |  | 99.94 |  |
| PI | MIL-101(Cr) | 70 | 0.2 | MPD (2 wt%) | TMC (0.066 wt%) | 57 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 4.75 | 1.21483376 | 96.22 | 0.997408521 |
| PI | MIL-68(Al) | 103 | 0.2 | MPD (2 wt%) | TMC (0.066 wt%) | 60 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 4.47 | 1.143222506 | 94.43 | 0.97885353 |
| PI | ZIF-11 | 79 | 0.2 | MPD (2 wt%) | TMC (0.066 wt%) | 72 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 6.33 | 1.618925831 | 91.98 | 0.953457033 |
| PI | ZIF-11 | 79 | 0.2 | MPD (2 wt%) | TMC (0.066 wt%) | 72 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | AO | 20 | 265 | 3.69 | 1.413793103 | 75.41 | 0.814011226 |
| PI | ZIF-11 | 79 | 0.2 | MPD (2 wt%) | TMC (0.066 wt%) | 72 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20 | 1017 | 3.81 | 1.56147541 | 99.91 | 0.99969982 |
| [17] | PI | ZIF-8 | 100 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 75 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 2.1 | 1.320754717 | 99.46 | 1.001207973 |
| PI | ZIF-8 | 100 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 75 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 2.1 | 1.320754717 | 99.54 | 0.99939759 |
| PI | ZIF-8 | 100 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 75 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 2.1 | 1.320754717 | 99.59 | 0.996597618 |
| PI | ZIF-8 | 100 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 75 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 2.1 | 1.320754717 | 99.75 | 0.998198739 |
| PI | MIL-53(Al) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 54 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 1.9 | 1.194968553 | 99.91 | 1.00573787 |
| PI | MIL-53(Al) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 54 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 1.9 | 1.194968553 | 99.92 | 1.003212851 |
| PI | MIL-53(Al) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 54 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 1.9 | 1.194968553 | 99.92 | 0.99989993 |
| PI | MIL-53(Al) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 54 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 1.9 | 1.194968553 | 99.92 | 0.99989993 |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 1.59 |  | 99.34 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 1.59 |  | 99.6 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 1.59 |  | 99.93 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 1.59 |  | 99.93 |  |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 2.43 | 1.528301887 | 99.93 | 1.005939199 |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 2.43 | 1.528301887 | 99.93 | 1.003313253 |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 2.43 | 1.528301887 |  |  |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 2.43 | 1.528301887 |  |  |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 3.05 | 1.918238994 | 99.87 | 1.005335212 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 3.05 | 1.918238994 | 99.93 | 1.003313253 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 3.05 | 1.918238994 |  |  |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 3.05 | 1.918238994 |  |  |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 3.9 | 2.452830189 | 98.5 | 0.991544192 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 3.9 | 2.452830189 | 99.17 | 0.995682731 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 3.9 | 2.452830189 | 99.21 | 0.992794956 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 3.9 | 2.452830189 | 99.75 | 0.998198739 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 400 | 3.75 | 2.358490566 | 98.81 | 0.994664788 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 600 | 3.75 | 2.358490566 | 99.21 | 0.996084337 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 800 | 3.75 | 2.358490566 | 99.93 | 1 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | oligomer |  | 1000 | 3.75 | 2.358490566 | 99.93 | 1 |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 400 | 1.72 |  | 98.28 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 600 | 1.72 |  | 98.85 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 800 | 1.72 |  | 99.82 |  |
| PI | MIL-101(Cr) | 47 | 0 | MPD (2 wt%) | TMC (0.1 wt%) | 73 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 1000 | 1.72 |  | 99.93 |  |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 400 | 4.46 | 2.593023256 | 96.12 | 0.978021978 |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 600 | 4.46 | 2.593023256 | 99.84 | 1.010015175 |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 800 | 4.46 | 2.593023256 | 99.93 | 1.001101984 |
| PI | MIL-101(Cr) | 47 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) | 53 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 1000 | 4.46 | 2.593023256 | 99.93 | 1 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 400 | 6.14 | 3.569767442 | 99.33 | 1.010683761 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 600 | 6.14 | 3.569767442 | 99.84 | 1.010015175 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 800 | 6.14 | 3.569767442 | 99.91 | 1.000901623 |
| PI | MIL-101(Cr) | 47 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) | 52 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 1000 | 6.14 | 3.569767442 | 99.93 | 1 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 400 | 9.94 | 5.779069767 | 96.77 | 0.984635735 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 600 | 9.94 | 5.779069767 | 99.64 | 1.007991907 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 800 | 9.94 | 5.779069767 | 99.82 | 1 |
| PI | MIL-101(Cr) | 47 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) | 50 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 1000 | 9.94 | 5.779069767 | 99.93 | 1 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 400 | 11.09 | 6.447674419 | 97.3 | 0.99002849 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 600 | 11.09 | 6.447674419 | 99.31 | 1.004653515 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 800 | 11.09 | 6.447674419 | 99.75 | 0.999298738 |
| PI | MIL-101(Cr) | 47 | 0.4 | MPD (2 wt%) | TMC (0.1 wt%) | 43 |  | THF | 72.11 | 0.63 | 0.889 | 81.11 | oligomer |  | 1000 | 11.09 | 6.447674419 | 99.93 | 1 |
| [18] | PI | MIL-101(Cr) | 173 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | AO | 20 | 265 | 2.6 |  | 93 |  |
| PI | MIL-101(Cr) | 173 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 3.4 |  | 91.3 |  |
| PI | MIL-101(Cr) | 173 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | AO | 20 | 265 | 3.1 | 1.192307692 | 99 | 1.064516129 |
| PI | MIL-101(Cr) | 173 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 3.9 | 1.147058824 | 91.1 | 0.997809419 |
| PI | ZIF-11 | 79 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | AO | 20 | 265 | 3.1 | 1.192307692 | 98.1 | 1.05483871 |
| PI | ZIF-11 | 79 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 4.9 | 1.441176471 | 84.1 | 0.921139102 |
| [19] | PI | MIL-101(Cr) | 60 | 0 | MPD (2 wt%) | TMC (0.1 wt%) |  | 24.8 | MROH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 7.5 |  | 94 |  |
| PI | MIL-101(Cr) | 60 | 0 | MPD (2 wt%) | TMC (0.1 wt%) |  | 24.8 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20 | 1017 | 6 |  | 99.5 |  |
| PI | MIL-101(Cr) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  | 47 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | SY | 20 | 452 | 10.1 | 1.346666667 | 91.1 | 0.969148936 |
| PI | MIL-101(Cr) | 60 | 0.2 | MPD (2 wt%) | TMC (0.1 wt%) |  | 47 | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | RB | 20 | 1017 | 9.5 | 1.583333333 | 98 | 0.984924623 |
| [20] | PI | UiO-66 | 20.2 | 0 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MROH | 32.04 | 0.59 | 0.792 | 40.45 | tetracycline |  | 444 | 1.87 |  | 99.96 |  |
| PI | UiO-66 | 20.2 | 0.05 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | tetracycline |  | 444 | 2.4 | 1.28342246 | 99.88 | 0.99919968 |
| PI | UiO-66 | 20.2 | 0.1 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | tetracycline |  | 444 | 2.55 | 1.363636364 | 99.81 | 0.9984994 |
| PI | UiO-66 | 20.2 | 0.15 | MPD (2 wt%) | TMC (0.1 wt%) |  |  | MEOH | 32.04 | 0.59 | 0.792 | 40.45 | tetracycline |  | 444 | 2.78 | 1.486631016 | 99.74 | 0.99779912 |